

NARMS Scientific Meeting
March 4-5, 2004
Holiday Inn Select, Decatur GA

March 4th – Thursday

8:30 – 8:40 Welcome and Introductions

Rob Tauxe MD MPH
Tom Chiller MD MPH, CDC/FDA-CVM

8:40 – 8:50 Overview on CDC's Antibiotic Resistance Programs

J Todd Weber MD FACP, CDC

8:50 – 9:00 Plenary Session I:

A summary from FAO/OIE/WHO expert workshop on non-human antimicrobial usage and antimicrobial resistance
Fred Angulo DVM PhD, CDC

**9:00 – 10:00 Session I: Overview of NARMS Surveillance of Enteric Bacteria
Moderators: Fred Angulo and Patrick McDermott**

Human NARMS surveillance: current resistant profiles in enteric bacteria
Tom Chiller MD MPH, CDC/FDA-CVM

Animal NARMS isolates
Paula Cray PhD, USDA-ARS

Prevalence and antimicrobial susceptibility of *Salmonella* isolated from humans and retail meats: The NARMS Pilot Study
Patrick F McDermott PhD, FDA-CVM

Antimicrobial susceptibility profiles of enteric bacteria isolated from retail foods of animal origin: NARMS/FoodNet update, 2002/2003
David White PhD, FDA-CVM

10:00 – 10:15 Coffee Break

10:15 – 11:30 Plenary Session II: Clinical Consequences of Antimicrobial Resistance

Moderators: Tom Chiller and Linda Tollefson

Antimicrobial-resistant nontyphoidal *Salmonella* is associated with excess bloodstream infections and hospitalizations-United States, 1996-2001
Jay Varma MD, CDC

Increased burden of illness associated with antimicrobial-resistant *Salmonella* Typhimurium

Leah Martin MSc, Health Canada

Resistant *Salmonella* Typhimurium and associated mortality

Kare Molbak MD PhD, Statens Serum Institute, Denmark

Hospitalization and death rates among outbreaks caused by antimicrobial-resistant and pan-susceptible *Salmonella*-United States, 1984-2002

Jay Varma MD, CDC

Mortality associated with fluoroquinolone-resistant *Campylobacter*

Kare Molbak MD PhD, Statens Serum Institute, Denmark

**11:30 – 12:00 Special Session: Recent Outbreaks of *S. Typhimurium* DT104
Moderator: Fred Angulo**

An outbreak of *Salmonella* Typhimurium DT104 R-type ACSSuT gastroenteritis at a holiday banquet, Virginia 2003

Asim Jani MD MPH FACP, Virginia State Health Department

Salmonella Typhimurium DT104 associated with cat adoption

John Dunn DVM PhD, CDC

Multi-state outbreak of *Salmonella* Typhimurium DT104 associated with ground beef

Elaine Scallan PhD, CDC

12:00 – 1:15 Lunch Break

1:15 – 2:45 Session II: Emerging Resistance among Clinically Important Antibiotics

Moderators: David Paterson and Kathryn Gay

Quinolone Resistance

Quinolone resistance among non-Typhi *Salmonella* and *Campylobacter* identified through NARMS surveillance

Jennifer Nelson MPH, CDC

Decreased susceptibility to fluoroquinolones in *Salmonella* Typhi and Paratyphi

Katrina Kretsinger MD, CDC

Overview of quinolone resistance from NARMS animal isolates

Mark Englen PhD, USDA

Extended-Spectrum Beta-Lactam Resistance

Ceftriaxone resistance in nontyphoidal *Salmonella* spp.

David Paterson MD, University of Pittsburgh Medical Center

Ceftiofur use and the dissemination of bacterial resistance genetics
Tom Wittum PhD, Ohio State University

Extended spectrum beta-lactamase resistance in non-Typhi *Salmonella* from animals
Jonathon Frye, USDA

2:45 – 3:00 Coffee Break

3:00 – 4:20 Session III: Multidrug Resistance
Moderators: Jean Whichard and Paula Cray

***Salmonella* Newport**
Epidemiology of *S. Newport*
Patricia M. Griffin MD, CDC

S. Newport in animals
Jaenetta Tankson PhD, USDA

Other MDR Pathogens
Multiresistant *Salmonella* Paratyphi B variety Java - the new DT104?
John Threlfall PhD, Health Protection Agency / Enter-net

Tetracycline and streptomycin resistance genes, transposons and plasmids in
Salmonella enterica from animal sources in Italy
Alessandra Carattoli PhD, Istituto Superiore di Sanita

Reservoirs of antibiotic resistance genes in the food chain
John J. Maurer DVM, UGA

Multidrug-resistant *S. Heidelberg*, an emerging pathogen?
Jean Whichard DVM PhD, CDC

4:20 – 4:55 Session IV: Environmental Studies on Antimicrobial Resistance
Moderator: Tom Chiller and Fred Angulo

Environmental dissemination of antibiotic-resistant bacteria and antibiotics from
agricultural and human sources
Michael Meyer PhD, USGS

Investigations of antimicrobial resistance associated with concentrated animal feeding
operations
Lauren Lewis MD MPH and Jane Horton MS, CDC

March 5th – Friday

8:30 – 9:45 **Session Va: Antimicrobial Resistance in Commensal Bacteria I** **Moderators: Tim Barrett and David White**

Enterococcus

Resistance patterns of Enterococci isolated from non-hospitalized human participants
Vrinda Nargund DVM MPH, CDC

High level gentamicin-resistant Enterococci isolated from human and poultry
Katrina Kretsinger MD, CDC

Resistance in Enterococci in animals
Charlene Jackson PhD, USDA

Antimicrobial susceptibility profiles of *Enterococcus* and *E. coli* isolated from NARMS retail meats, 2002
David G. White PhD, FDA-CVM

Antimicrobial resistance of intestinal commensal bacteria from poultry
Susan Sanchez PhD, University of Georgia

9:45 – 10:15 **Coffee Break**

10:15 – 11:15 **Session Vb: Antimicrobial Resistance in Commensal Bacteria II** **Moderators: Tim Barrett and David White**

Summary of IMPART Component C – Surveillance of resistant *E. coli*: prevalence, epidemiology and risk factors
Lee Hannah DVM MS MPH, University of Utah

Foodborne antibiotic resistant and pathogenic *E. coli*
Jim Johnson MD, University of Minnesota

Antibiotic resistant organisms among human stool normal flora
Chris Braden MD, CDC

Overview of collaboration on animal health, food safety and epidemiology (CAHFSE), a USDA project
Robert R. Kraeling PhD, USDA

11:15 – 12:00 Session VI: Partner Perspectives on Antimicrobial Resistance
Moderators: Tom Chiller and Lyle Vogel

Does the use of antibiotics in food animals pose a risk to human health? A critical review of published literature
Tony Cox PhD MS, Cox Associates

Evaluating methodological options for collecting animal antimicrobial usage data in the United States
Stephen Devincent DVM MA, APUA

Livestock feeding and antimicrobial resistance: consumer perspectives on the emerging public health crisis
Steven Roach MA, K A W C and F A C T

12:00 – 1:15 Lunch

1:15 – 3:15 Session VII: International Perspectives on Antimicrobial Resistance
Moderators: John Threlfall and Tom Chiller

CIPARS (Canadian Integrated Program for Antimicrobial Resistance Surveillance)
Rebecca Irwin DVM MSc, Health Canada

Antimicrobial resistance of foodborne pathogens: situation in food of animal origins in Thailand
Thongchai Chalermchaikit PhD, Chulalongkorn University

Antimicrobial resistance in *Salmonella* from cases of human infection and food animals in Europe, 1999-2001
John Threlfall PhD, Health Protection Agency / Enter-net

Resistance in *Campylobacter* in Vietnam
Phung Dac Cam

The emergence of fluoroquinolone-resistant *Shigella dysenteriae* type 1 in India and Bangladesh, 2003-2004
Pavani Kalluri MD, CDC

Multidrug-resistant *Salmonella* strains isolated in Poland
Anna Cieslik, Institute of Hygiene, Poland

2002 Philippine antimicrobial resistance surveillance data
Celia Carlos, MD, RITM, Philippines

*bla*CMY genes, cephalosporin resistance
Paul Fey PhD, University of Nebraska

3:15 – 3:45 Coffee Break

**3:45 – 4:45 Session VIII: NARMS Educational Activities
Moderators: Jennifer Nunnery and James Averill**

Creating a program for NARMS educational activities
Heather Bair DVM, CDC

Appropriate use of antimicrobial agents: course materials for veterinary students
Jennifer Nunnery DVM, CDC

A project in Michigan to mitigate antimicrobial resistance in animal agriculture
James Averill DVM, Michigan State University

Antimicrobial resistance in swine used as a food source
Richard Fister PhD, Tufts University

Effect of chlortetracycline on *Salmonella* and the fecal flora of swine
Julie Funk DVM MS PhD, OHSU

4:45 Closing Remarks